

ABSTRACT

To provide structural Cr-containing steel with excellent low-temperature toughness and impact toughness, with low costs as compared with stainless steel, and with sufficient corrosion resistance. Specifically, this is structural Cr-containing steel and a manufacturing method thereof, wherein the Cr-containing steel contains C of 0.002 to 0.02%; N of 0.002 to 0.02%; Si of 0.05 to 1.0%; Mn of 0.05 to 1.0%; P of 0.04% or less; S of 0.02% or less; Al of 0.001 to 0.1%; and Cr of 6.0 to 10.0%, further may contain Cu of 0.1 to 1.0%, further may contain at least one of: Ni of 0.1 to 1.0%; and Mo of 0.1 to 1.0%, and further may contain at least one of: Nb of 0.005 to 0.10%; and V of 0.005 to 0.20%, the balance are formed of Fe and unavoidable impurities, and the Cr-concentration in the surface layer of the steel is equal to or more than the value wherein 1% is subtracted from the Cr-concentration within the steel.